

Commonwealth of Kentucky
Division for Air Quality
PERMIT STATEMENT OF BASIS

DRAFT

Conditional Major, Operating

Permit: F-08-008

Meritor

Franklin, KY 42134

February 14, 2008

Rita Arguello, Reviewer

SOURCE ID: 21-213-00015

AGENCY INTEREST: 3983

ACTIVITY: APE20070001

SOURCE DESCRIPTION:

Meritor is an existing source located in Franklin, KY. This facility manufactures heavy vehicle brake systems. The plant consists of three air make-up units, one washing/rinsing unit that contains three baths, four furnaces, two electric arc induction furnaces, a primary and backup pressure pour holding furnaces, a finishing/machining department, a shotblast unit and one paint spray booth.

RENEWAL COMMENTS:

Meritor made changes in the last few years; therefore, these changes are being incorporated in this renewal. The changes made are the follows:

Section B: Paint used has been replaced to a non- HAP, water- base- paint, eliminating Xylene from the process. A solvent has been eliminated from Meritor's painting process, and removed from this permit.

EP 08, Back-up Holding Furnace, has been removed from this permit.

EP 17 Back-up Pressure Pour Furnace was added as a new unit. Regulation 401 KAR 63:021 apply.

An ISC3 modeling run for lead (a hazardous air pollutant) showed ambient concentrations, even without controls, would be below levels that would create risk for the exposed populace. Meritor's monitoring records indicated that their lead concentration is below ambient limit. The source plant wide has a limit in lead emissions.

Corrections to the existing permit (F-03-007):

Section B: EP 01, Air Make-Up Units, were listed with no applicable regulation, but 401 KAR 59:010 should have applied; since these units have emissions of less than 5 tons per year; it has been moved to Section C.

EP 10, Drying Heater, New indirect heat exchangers regulation was applied previously, but it is actually a direct fired unit. Emissions are below 5 tons per year. This emission point has been moved to Section C.

Performance Test (stack and exhaust vent) for PM and Lead is required within this permit period.

Section C: EP 01 and EP 10 have been added to Insignificant Activities with regulations applied.

Regulations: 401 KAR 63:021, for lead. Monitoring requirement has been changed.

CREDIBLE EVIDENCE:

This permit contains provisions which require that specific test methods, monitoring or recordkeeping be used as a demonstration of compliance with permit limits. On February 24, 1997, the U.S. EPA promulgated revisions to the following federal regulations: 40 CFR Part 51, Sec. 51.212; 40 CFR Part 52, Sec. 52.12; 40 CFR Part 52, Sec. 52.30; 40 CFR Part 60, Sec. 60.11 and 40 CFR Part 61, Sec. 61.12, that allow the use of credible evidence to establish compliance with applicable requirements. At the issuance of this permit, Kentucky has only adopted the provisions of 40 CFR Part 60, Sec. 60.11 and 40 CFR Part 61, Sec. 61.12 into its air quality regulations.

PREVIOUS PERMIT ACTIONS:

The Permit Review Branch received a permit renewal application on December 16, 2002 from Meritor. The application requested several modifications to the previous permit requirements.

In the previous permit, the following emission points were identified as significant activities:

1. EP02 Borax Rinse Tank
2. EP03 Wash and Rinse Tanks
3. EP12 Shotblaster
4. EP14 Roads Paved

The applicant identified these units as insignificant activities and requested that they be moved to that list. Review of these units confirmed this classification for EPs 2, 3 and 14; in the draft permit these units have been moved to the insignificant activities list. The same review showed that EP12 should still be considered a significant activity since the building, as an enclosure, cannot be used to determine PTE.

In the previous permit, the following emission points required daily monitoring and record keeping:

1. EP04 Scrap Handling and Charge
2. EP05 #1 Induction Furnace
3. EP06 #2 Induction Furnace
4. EP07 Transfer to Ladle
5. EP08 Holding Furnace
6. EP09 Pouring

The applicant requested that weekly monitoring and record keeping be sufficient to document compliance with emission limitations. After a review of these units and because of the facility's good compliance history the monitoring and record keeping requirements have been changed in the new permit.

During the review process, in discussions with representatives from the facility, it came to light that some changes and installations had occurred at the facility that were not reported to the Division by application and that they had a new installation planned. Subsequently, additional application forms were sent for these points under the same log number. The following points are affected:

1. EP11 was changed from a Dry Machining station with one lathe to a Wet Machining station with 5 lathes. This change is an insignificant activity and releases no HAPs.
2. EP15 Drum Washer was installed June 1, 2002. This EP is an insignificant activity and releases no HAPs.
3. EP16 Pressure Pour Furnace installation will commence upon receipt of a final permit. The new unit will replace EP8 Holding Furnace, which will remain at the facility as a backup. The capacity of the new furnace is 15 tons; however, the two induction furnaces that feed it limit the furnace process rate. Each induction furnace has a maximum capacity of 4.4 tons. Emission factors from EP8 and a process rate of 8.8 tons/hr were used to determine emissions from the new furnace.

After the new furnace is integrated into their process, the facility will stack test to determine

PREVIOUS PERMITS ACTIONS (CONTINUED)

emission factors for all uncontrolled units including the new furnace.

Lastly, the applicant requested that SECTION B (6) Specific Reporting Requirements be changed from quarterly to semi-annually. The new permit has been changed with reports due by January 30 and July 30 each year.

APPLICABLE REGULATIONS:

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|---------------------------|--|
| 1. Air Make-up Units | None |
| 2. Borax Rinse Tank | None |
| 3. Wash/Rinse Tank | None |
| 4. Scrap/Charge Handling | 401 KAR 59:010, New process operations |
| 5. #1 Induction Furnace | 401 KAR 59:010, New process operations
401 KAR 63:020, Potentially hazardous matter or toxic substances |
| 6. #2 Induction Furnace | 401 KAR 59:010, New process operations
401 KAR 63:020, Potentially hazardous matter or toxic substances |
| 7. Transfer to Ladle | 401 KAR 59:010, New process operations
401 KAR 63:021, Existing sources emitting toxic air pollutants |
| 8. Backup Holding Furnace | 401 KAR 59:010, New process operations
401 KAR 63:020, Potentially hazardous matter or toxic substances |
| 9. Pouring | 401 KAR 59:010, New process operations
401 KAR 63:021, Existing sources emitting toxic air pollutants |
| 10. Dryer Heating | 401 KAR 59:015, New indirect heat exchangers
401 KAR 63:021, Existing sources emitting toxic air pollutants |
| 11. Wet Machining | 401 KAR 59:010, New process operations |
| 12. Shotblaster | 401 KAR 59:010, New process operations |
| 13. Paint Spray Booth | 401 KAR 59:010, New process operations
401 KAR 63:020, Potentially hazardous matter or toxic substances |

PREVIOUS PERMITS ACTIONS (CONTINUED)

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|---------------------------|--|
| 14. Roads – Paved | 401 KAR 63:010, Fugitive emissions |
| 15. Drum Washer | 401 KAR 59:010, New process operations |
| 16. Pressure Pour Furnace | 401 KAR 59:010, New process operations
401 KAR 63:020, Potentially hazardous matter or toxic substances |

EMISSION AND OPERATING CAPS DESCRIPTION:

1. Particulate (PM₁₀) shall not exceed 95 tons per year based on a 12 month rolling total for the entire source to preclude a major source Title V review.
2. Particulate (PT) shall not exceed 95 tons per year based on a 12 month rolling total for the entire source to preclude a major source Title V review.
3. Volatile organic compound (VOC) emissions shall not exceed 95 tons per year based on a 12 month rolling total for the entire source to preclude a major source Title V review.
4. Hazardous air pollutants (HAPS) emissions shall not exceed 9.5 tons per year individually and 22.5 tons per year combined based on a rolling 12-month rolling total for the entire source to preclude a major source Title V review.

PERIODIC MONITORING:

Weekly observations of emissions and a quarterly EPA Reference Method 9 for EPs 4, 5, 6, 7, 8, 9, 12, and 16 shall be performed. EP 10 will submit to annual EPA Reference Method 9 monitoring.

CREDIBLE EVIDENCE:

This permit contains provisions that require that specific test methods, monitoring or record keeping be used as a demonstration of compliance with permit limits. On February 24, 1997, the U.S. EPA promulgated revisions to the following federal regulations: 40 CFR Part 51, Sec. 51.212; 40 CFR Part 52, Sec. 52.12; 40 CFR Part 52, Sec. 52.30; 40 CFR Part 60, Sec. 60.11 and 40 CFR Part 61, Sec. 61.12, that allow the use of credible evidence to establish compliance with applicable requirements. At the issuance of this permit, Kentucky has not incorporated these provisions in its air quality regulations